What is it?
Haglund’s deformity, also called pump bump, winter heel, Mulholland deformity, or retrocalcaneal exostosis, is a bony enlargement of the posterosuperior heel bone, called the calcaneus, at the insertion site of the Achilles tendon. The Achilles tendon is the tendinous combination of the calf muscles, consisting of the gastrocnemius, soleus and plantaris muscles.

Haglund’s syndrome is a condition that results when Haglund’s deformity leads to inflammation and pain of the Achilles tendon, subcutaneous calcaneal bursa, and/or retrocalcaneal bursa. The subcutaneous calcaneal bursa is a fluid-filled sac located between the skin and the Achilles tendon. The retrocalcaneal bursa is a fluid-filled sac located between the Achilles tendon and the calcaneus.

Symptoms/Risks
Symptoms of Haglund’s deformity include:
- Posterior heel pain, typically described as a dull pain
- Pain worse with walking, after rest and when wearing shoes
- Posterior heel redness, swelling and enlargement

Risk factors of Haglund’s deformity include:
- Improper shoe use, such as high heels, rigid backs of shoes, or low backs of shoes
- High foot arch
- Tight Achilles tendon
- Female gender
- Obesity
- Over-training, especially in runners

Sports Medicine Evaluation & Treatment
A sports medicine physician will take a history of the condition and perform a physical exam. The physical exam will include close examination of all of the posterior heel structures. They will likely order X-rays of the feet and ankles and may perform a diagnostic ultrasound to evaluate for the bony enlargement at the posterosuperior calcaneus and signs of inflammation of the Achilles tendon and/or bursa.

Conservative treatment options for Haglund’s deformity include:
- Shoe wear modifications
- Use of an orthosis; such as heel lifts or heel pads
- Physical therapy, focusing on stretching and ankle/foot muscle strengthening
- Application of ice to the posterior heel
- Anti-inflammatory medications, oral or topical

If conservative treatment options fail to improve the condition, then more invasive options are available. A sports medicine physician can perform a local corticosteroid injection in the bursa to decrease pain and inflammation. Regenerative medicine interventions like Platelet-Rich Plasma (PRP) injections may be considered in some cases.

Surgical intervention is the last option and involves removal of the bony enlargement of the calcaneus, called a calcaneus osteotomy. Surgical intervention can be performed with an endoscopic (minimally invasive) technique or an open technique.
Injury Prevention
Injury prevention is similar to many of the conservative management options, including:

- Shoe wear modifications
- Adequate training progression and technique
- Stretching exercises

Return to Play
Return to play and return to normal shoe wear is dependent on the level of pain. If surgical intervention has been performed, then return to play and normal shoe wear is typically 3-6 months after surgery.

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References:

AMSSM is a multi-disciplinary organization of sports medicine physicians dedicated to education, research, advocacy and the care of athletes of all ages. The majority of AMSSM members are primary care physicians with fellowship training and added qualification in sports medicine who then combine their practice of sports medicine with their primary specialty. AMSSM includes members who specialize solely in non-surgical sports medicine and serve as team physicians at the youth level, NCAA, NFL, MLB, NBA, WNBA, MLS and NHL, as well as with Olympic teams. By nature of their training and experience, sports medicine physicians are ideally suited to provide comprehensive medical care for athletes, sports teams or active individuals who are simply looking to maintain a healthy lifestyle. Find a sports medicine physician in your area at www.amssm.org.